REMARKS

The above amendment is made in response to the final Office action of April 28, 2011. The Examiner's reconsideration is respectfully requested in view of the above amendment and the following remarks.

Claims 1-3 and 8-10 have been amended. Claims 1-30 are pending in the present application. The present amendment introduces no new matter, as support is found throughout the originally filed specification and claims.

Rejections under 35 U.S.C. §102(b) and 35 U.S.C. §103(a):

Claims 1-4, 7-11, 14-16, 21-24, 29 and 30 stand rejected under 35 U.S.C. §102(b) as being anticipated by Kubota et al. (U.S. Patent No. 6,437,768; hereinafter referred to as "Kubota"). Also, claims 5, 6, 12, 13, 17-20 and 25-28 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Kubota.

In order to anticipate a claim under 35 U.S.C. §102, a single source must contain all of the elements of the claim. *Lewmar Marine v. Barient, Inc.*, 827 F.2d 744, 747, 3 U.S.P.Q.2d 1766, 1768 (Fed. Cir. 1987), *cert denied*, 484 U.S. 1007 (1988). Moreover, the single source must disclose all of the claimed elements "arranged as in the claim." *Structural Rubber Prods. Co. v. Park Rubber Co.*, 749 F.2d 707, 716, 223 U.S.P.Q. 1264, 1274 (Fed. Cir. 1984). Missing elements may not be supplied by the knowledge of one skilled in the art or the disclosure of another reference. *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 780, 227 U.S.P.Q. 773, 777 (Fed. Cir. 1985).

In order for an obviousness rejection to be proper, the Examiner must meet the burden of establishing that all elements of the invention are disclosed in the prior art; that the prior art relied upon, coupled with knowledge generally available in the art at the time of the invention, must contain some suggestion or incentive that would have motivated the skilled artisan to modify a reference or combined references; and that the proposed modification of the prior art must have had a reasonable expectation of success, determined from the vantage point of the skilled artisan at the time the

invention was made. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988); *In re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970); *Amgen v. Chugai Pharmaceuticals Co.*, 927 U.S.P.Q.2d, 1016, 1023 (Fed. Cir. 1996). See MPEP 2143.

Applicants traverse the rejections based upon Kubota because Kubota does not teach or suggest each of the elements of the invention as claimed in the amended claims.

Independent claims 1 and 8 and their dependent claims:

Independent claims 1 and 8 are directed to a memory device and a driving method thereof, respectively, where **second transfer gates** are switched to transfer data from memory cells to data buffers for a driving circuit.

Applicants have amended independent claims 1 and 8 to recite, *inter alia*, the followings:

> wherein the second transfer gates are switched by second signals which are derived from a single enable signal and divided into several groups, **each group of the second signals having a different time delay**,
>
> wherein the second signals of each group switch the second transfer gates of a corresponding group to allow the binary information to be transferred from the memory cells to the data buffers **through the switched second transfer gates** of the corresponding group.
> [emphasis added]

In the claimed invention of amended claims 1 and 8, the second transfer gates are switched by the second signals (while the first transfer gates are switched by the first signals), and the second signals are divided into several groups each of which has a different time delay. The second signals of each group having a different time delay switch the second transfer gates of the corresponding group so that the data (or binary information) is transferred from the memory cells (or the memory cell array) to the data buffers through the switched second transfer gates of the corresponding group.

Examiner has indicated that the first transfer gates and the second transfer gates of the claimed invention correspond to the IN and OUT, respectively, of the latch circuit of Kubota. Applicants respectfully disagree with such analysis.

As required in claims 1 and 8, the first transfer gates are switched by the first signals and the second transfer gates are switched by the second signals. In other words, the first and second transfer gates of the claimed invention are switched by two signals, respectively. In contrast, Kubota merely discloses a latch circuit having one enable signal. There is no teaching or suggestion in Kubota of anything such that the IN and OUT of the latch circuit are switched by two signals, respectively. Applicants submit that the first and second transfer gates of the invention, which are controlled by the first and second switching signals, respectively, are structurally different enough to be patentably distinct over Kubota.

Further, in the claimed invention, the second signals switching the second transfer gates are divided into multiple groups each of which has a time delay so that the data is transferred from the memory cells to the data buffers through the switched second transfer gates of a certain group that corresponds to one of the groups of the second signals. Examiner has stated that Kubota teaches in Fig. 6 that signals switching the second transfer gates are divided into several groups and the signals of each group have a different time delay.

Kubota at best teaches latch circuit groups each of which a clock signal (CLIn) is provided to delay an enable signal (ST) that is applied to the latch circuit groups in series. In other words, each latch circuit group is controlled by a clock signal to process an enable signal and output a delayed enable signal to the next latch circuit group. Kubota neither teaches nor suggests switching a group of transfer gates with a group of signals which having a time delay so that data (or binary information) is transferred through a group of the transfer gates switched by the corresponding group of the signals having a different time delay.

Thus, claims 1 and 8 are believed patentably distinct and non-obvious over Kubota. Claims 4-7 depend from claim 1 and claims 11-14 from claim 8, and thus include all the limitations of the respective independent claims.

Accordingly, claims 1, 4-7, 8 and 11-14 are believed neither anticipated by nor obvious over Kubota.

Independent claims 2 and 9 and their dependent claims:

Independent claims 2 and 9 are directed to a memory device and a driving method thereof, respectively, where **data buffers** are controlled to transfer data from memory cells to a driving circuit through the data buffers.

Applicants have amended claims 2 and 9 to recite, *inter alia*, the followings:

> wherein the data buffers are enabled by second signals which are derived from a single enable signal and divided into several groups, **each group of the second signals having a different time delay**,
>
> wherein the second signals of each group enable the data buffers of a corresponding group to allow the binary information to be transferred from the memory cells **to the enabled data buffers** of the corresponding group.
>
> [emphasis added]

In the invention claimed in claims 2 and 9, the data buffers are controlled (i.e., enabled) by the second signals (while the first transfer gates are switched by the first signals), and the second signals are divided into several groups each of which has a different time delay. The second signals of each group having a different time delay enable the data buffers of the corresponding group so that the data (or binary information) is transferred from the memory cells (or the memory cell array) to the enabled data buffers of the corresponding group.

It is submitted that Kubota does not teach or suggest **switching transfer gates with first signals** to write data in memory cells and **enabling data buffers with second signals** to transfer the data from the memory cells to the enabled data buffers, as claimed in amended claims 2 and 9.

Further, in the claimed invention, the second signals enabling the data buffers are divided into multiple groups each of which has a time delay so that the data is

transferred from the memory cells to the enabled data buffers of a certain group that corresponds to one of the groups of the second signals. Kubota neither teaches nor suggests enabling a group of data buffers with a group of signals which having a time delay so that data (or binary information) is transferred to a group of the data buffers enabled by the corresponding group of the signals having a different time delay.

Thus, claims 2 and 9 are believed patentably distinct and non-obvious over Kubota. Claims 15, 17, 19 and 21 depend from claim 2 and claims 23, 25, 27 and 29 from claim 9, and thus include all the limitations of the respective independent claims.

Accordingly, claims 2, 9, 15, 17, 19, 21, 23, 25, 27 and 29 are believed neither anticipated by nor obvious over Kubota.

Independent claims 3 and 10 and their dependent claims:

Independent claims 3 and 10 are directed to a memory device and a driving method thereof, respectively, where **second transfer gates and data buffers** are controlled to transfer data from memory cells through selected second transfer gates to selected data buffers.

Applicants have amended claims 3 and 10 to recite, *inter alia*, the followings:

> wherein the data buffers are enabled and the second transfer gates are switched by second signals which are derived from a single enable signal and divided into several groups, **each group of the second signals having a different time delay**,
>
> wherein the second signals of each group switch the second transfer gates of a corresponding group and enable the data buffers of a corresponding group to allow the binary information to be transferred from the memory cells **through the switched second transfer gates** of the corresponding group **to the enabled data buffers** of the corresponding group.
>
> [emphasis added]

In the claimed invention of amended claims 3 and 10, both the second transfer gates and the data buffers are controlled by the second signals (while the first transfer gates are switched by the first signals), and the second signals are divided into several groups each of which has a different time delay. The second signals of each group having a different time delay switch the second transfer gates and enable the data buffers of the corresponding group so that the data (or binary information) is transferred from the memory cells (or the memory cell array) through the switched second transfer gates to the enabled data buffers of the corresponding group.

There is no disclosure or suggestion in Kubota of anything about **switching first transfer gates with first signals** to write data in memory cells and **switching second transfer gates and enabling data buffers with second signals** to transfer the data from the memory cells to the enabled data buffers through the switched second transfer gates, as claimed in amended claims 3 and 10.

Thus, claims 3 and 10 are believed patentably distinct and non-obvious over Kubota. Claims 16, 18, 20 and 22 depend from claim 3 and claims 24, 26, 28 and 30 from claim 10, and thus include all the limitations of the respective independent claims.

Accordingly, claims 3, 10, 16, 18, 20, 22, 24, 26, 28 and 30 are believed neither anticipated by nor obvious over Kubota.

Accordingly, Examiner's reconsideration and withdrawal of the rejections under 35 U.S.C. 102(b) and 103(a) in view of Kubota are respectfully requested.

CONCLUSION:

In view of the foregoing, it is respectfully submitted that the instant application is in condition for allowance. Accordingly, it is respectfully requested that this application be allowed and a Notice of Allowance issued. If the Examiner believes that a telephone conference with Applicants' attorneys would be advantageous to the disposition of this case, the Examiner is cordially requested to telephone the undersigned.

In the event the Commissioner of Patents and Trademarks deems additional fees to be due in connection with this application, Applicants' attorney hereby authorizes that such fee be charged to Deposit Account No. 110853.

Respectfully submitted,

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